

12-07-2006

SHEET

U.S. Department of Commerce  
Patent and Trademark Office  
Attorney Docket No. 09646.0020  
EMC Reference No. 06-325  
Attorney Customer Number: 22,852

To the Director of the U.S. P:

Please record the attached original documents or copy thereof.

103345590

Mail Stop Assignment Recordation Services

1. Name of conveying party(ies):

(1) Michael E. BAPPE,  
(2) Helen S. RAIZEN, and  
(3) Edward L. THIGPEN

2. Name and address of receiving party(ies):

Name: EMC Corporation

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ NoInternal  
Address:

3. Nature of conveyance:

Street Address: 176 South Street

☒ Assignment ☐ Merger

City: Hopkinton

☐ Security Agreement ☐ Change of Name

State: Massachusetts Zip Code: 01748

☐ Other:

Additional name(s) &amp; Address(es) attached?

Execution Dates: (1) November 30, 2006, (2) November 28, 2006,  
and (3) November 27, 2006☐ Yes ☒ No

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application:

(1) November 30, 2006, (2) November 28, 2006, and (3) November 28, 2006

A. Patent Application Number(s):

B. Patent Number(s):

Additional numbers attached?

☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Anthony J. Lombardi

6. Total number of applications and registrations involved: 1

Internal Address: FINNEGAN, HENDERSON, FARABOW, GARRETT &amp; DUNNER, L.L.P.

Street Address: 901 New York Avenue, N.W.

City: Washington, D.C.

7. Total fee (37 CFR 3.41): \$40

☒ Enclosed (Please charge deficiency to deposit account)☐ Authorized to be charged to deposit account

State: Zip: 20001-4413

8. Deposit Account No.: 06-0916

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Anthony J. Lombardi

Reg No. 53,232

Signature

December 1, 2006

Date

Total number of pages including cover sheet, attachments and documents: 13

## ASSIGNMENT

WHEREAS, we, Michael E. Bappe, Helen S. Raizen, and Edward L. Thigpen have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled ***SYSTEMS AND METHODS FOR MAINTAINING DATA INTEGRITY DURING A MIGRATION***, the specification of which:

☒ is being executed on even date herewith and is about to be filed in the United States Patent Office;

☐ was filed on \_\_\_\_\_ as U.S. Application No. \_\_\_\_\_;

☐ was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

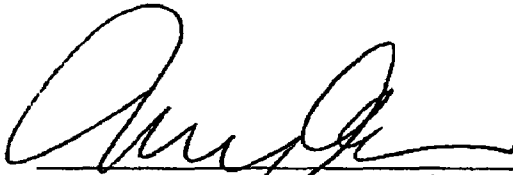
AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution,

reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: 11-30-06



Inventor's Signature

Print full name of first inventor:

Michael E. Bappe

Residence:

Loveland, CO

Citizenship:

United States

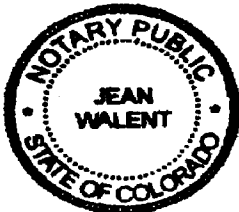
Mailing Address:

1017 Knobcone Place, Loveland, CO 80538

STATE/COMMONWEALTH OF  
COUNTY OF

Colorado  
Larimer

On this 30<sup>th</sup> day of November, 2006, then personally appeared before me the above-named Michael Bappe known to me through satisfactory evidence of identification ☐ employee identification card; ☒ driver's license; ☐ (other) Michael Bappe to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.



MY COMMISSION EXPIRES:  
October 10, 2010

  
Notary Public

Print Name: Jean Valent

My Commission expires 10/10/2010

Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of second inventor:

**Helen S. Raizen**

Residence:

Jamaica Plain, MA

Citizenship:

United States

Mailing Address:

51 Bynner Street, Jamaica Plain, MA 02130

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification ☐ employee identification card; ☐ driver's license; ☐ (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of second inventor:

Edward L. Thigpen

Residence:

Raleigh, NC

Citizenship:

United States

Mailing Address:

4917 Regalwood Drive, Raleigh, NC 27613

STATE/COMMONWEALTH OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

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\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## ASSIGNMENT

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☒ [X] is being executed on even date herewith and is about to be filed in the United States Patent Office;

☐ [ ] was filed on \_\_\_\_\_ as U.S. Application No. \_\_\_\_\_;

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**WHEREAS**, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

**NOW, THEREFORE**, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

**AND**, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution,

reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of first inventor: **Michael E. Bappe**  
Residence: Loveland, CO  
Citizenship: United States  
Mailing Address: 1017 Knobcone Place, Loveland, CO 80538

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification [ ] employee identification card; [ ] driver's license; [ ] (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date:

11/28/2006

Helen S. Raizen

Inventor's Signature

Print full name of second inventor:

**Helen S. Raizen**

Residence:

Jamaica Plain, MA

Citizenship:

United States

Mailing Address:

51 Bynner Street, Jamaica Plain, MA 02130

STATE/Commonwealth of  
COUNTY OF

~~MIDDLESEX~~ MASSACHUSETTS <sup>SAR</sup>  
MIDDLESEX

On this 28 day of NOVEMBER, 2006, then personally appeared before me the  
above-named HELEN S. RAIZEN known to me through satisfactory evidence of  
identification ☐ employee identification card; ☒ driver's license; ☐ (other)  
\_\_\_\_\_ to be the person whose name is subscribed to the  
foregoing Assignment and acknowledged that he/she executed the same as his/her free act and  
deed for the purposes therein contained.

Sandra A. Kulaga

Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_\_



SANDRA A. KULAGA  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
March 27, 2009



Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of second inventor:

**Edward L. Thigpen**

Residence:

Raleigh, NC

Citizenship:

United States

Mailing Address:

4917 Regalwood Drive, Raleigh, NC 27613

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

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\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

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☐ [ ] was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

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**NOW, THEREFORE**, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

**AND**, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution,

reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of first inventor:

**Michael E. Bappe**

Residence:

Loveland, CO

Citizenship:

United States

Mailing Address:

1017 Knobcone Place, Loveland, CO 80538

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification [ ] employee identification card; [ ] driver's license; [ ] (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of second inventor:

**Helen S. Raizen**

Residence:

Jamaica Plain, MA

Citizenship:

United States

Mailing Address:

51 Bynner Street, Jamaica Plain, MA 02130

STATE/Commonwealth of \_\_\_\_\_

COUNTY OF \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, then personally appeared before me the above-named \_\_\_\_\_ known to me through satisfactory evidence of identification [ ] employee identification card; [ ] driver's license; [ ] (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date:

11/27/06

  
Inventor's Signature

Print full name of second inventor:

Edward L. Thigpen

Residence:

Raleigh, NC

Citizenship:

United States

Mailing Address:

4917 Regalwood Drive, Raleigh, NC 27613

STATE/Commonwealth of  
COUNTY OF

NORTH CAROLINA  
DURHAM

On this 27th day of NOVEMBER, 2006, then personally appeared before me the above-named EDWARD L. THIGPEN known to me through satisfactory evidence of identification [☒] employee identification card; [☐] driver's license; [☐] (other) \_\_\_\_\_ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

  
Notary Public

Print Name: JULIE L. OSTERMEYER

My Commission expires 02/09/2008